

# THE CAMBRIDGE STATISTICS DISCUSSION GROUP

**Monday 13th March 2006 7:15 for 7:45**

Small (Tom Ap Rees) Lecture Theatre, Department of Plant Sciences,  
Downing Site, Cambridge

## **Analysing imperfect randomised trials**

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**Abstract:** In a perfect randomised trial, everyone receives their randomised treatment. Most randomised trials in medicine fail to achieve this ideal. Conventionally they are analysed by intention-to-treat which estimates relative merits of different treatment policies, but other methods are required if the relative merits of the actual treatments are of interest. A common alternative is per-protocol analysis, but this is subject to selection bias. I will introduce randomisation-based methods of causal inference, which avoid both problems. They are not widely used, perhaps because of their complexity and unfamiliarity to many statisticians. I will give some examples where randomisation-based causal inference has given useful conclusions.

**Speakers:** Ian White is Senior Scientist at the Medical Research Council's Biostatistics Unit in Cambridge, and was previously Senior Lecturer in the Medical Statistics Unit at the London School of Hygiene and Tropical Medicine. After studying mathematics at Cambridge University, his first career was as a teacher of mathematics in The Gambia, Cambridge and London. He then obtained his MSc in statistics from University College London, where he subsequently worked in the Department of Epidemiology and Public Health.

**Directions:** The Department of Plant Sciences is located on the Downing site situated between Downing Street and Tennis Court Road (see map below). Go through the second door you come to in the building immediately on your left as you enter from Tennis Court Road. Once inside the building follow the arrows. Refreshments will be served in the first floor kitchen. It is not possible to park on the Downing site in the evening. The nearest car park is at Lion Yard. Arrivals after 7:45pm can gain admittance by contacting the secretary on 07761769436.

**Provisional Next Meetings:**

3rd April – Rebecca Turner (Biostatistics) on ‘Design of cluster randomised trials, using empirical evidence on the intracluster correlation coefficient’.

4th May – Adam Kleczkowski (Plant Sciences).

**Supper:** Some members eat regularly in the University Centre before each meeting at **5-45pm**. Feel free to join them.

**Subscriptions:** of 4 pounds are now due for attending the 2005-2006 session.

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